

No. 3945.

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IN THE

United States

Circuit Court of Appeals,

FOR THE NINTH CIRCUIT.

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David G. Lorraine,

*Appellant,*

*vs.*

Francis M. Townsend, Milon J. Trumble and Alfred J. Gutzler, Doing Business Under the Firm Name of  
Trumble Gas Trap Company,

*Appellees.*

SUIT ON  
TRUMBLE  
PATENT  
No. 1,269,134

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BRIEF FOR PLAINTIFFS-APPELLEES.

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FREDERICK S. LYON,

LEONARD S. LYON,

FRANK L. A. GRAHAM,

*Solicitors for Plaintiffs-Appellees.*



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**STATEMENT OF THE CASE.**

This cause comes before this court on appeal from the District Court for the Southern District of California, the interlocutory decree therein finding that United States Letters Patent No. 1,269,134 granted to Milon J. Trumble, Francis M. Townsend and Alfred J. Gutzler, plaintiffs-appellees, on June 11th, 1918, for

crude petroleum and natural gas separators, the invention of Milon J. Trumble, one of the plaintiffs-appellees, are valid, claims 1, 2, 3 and 4 infringed, and granting an injunction.

The patent is for a "Crude Petroleum and Natural Gas Separator."

Petroleum oil as it comes from a well generally contains more or less gas which must be eliminated before the oil is suitable for commercial purposes or storage. The product of a well consists of a mixture comprising a liquid which under ordinary conditions is always a liquid; a fixed gas which under ordinary conditions is always a gas; and an intermediate product, principally gasoline. Under ordinary well pressures, this intermediate product of gasoline remains in a liquid state, but, if the well pressure be released, will tend to become vaporized.

It has been and is the practice to pass the oil as it comes from the well through a suitable feed-line and into storage tanks, which tanks are under atmospheric pressure. During the passage of the oil from the well to the storage tanks, it has been and is common to separate the gas from the oil in order that the gas may be saved and utilized, and in order that the oil may be passed to the tanks free from gas. The device or apparatus for accomplishing this purpose is called in the art a "gas trap." The device of the patent in suit is a gas trap, but it was designed with a new object in view. Prior to the Trumble invention, the designers and users of gas traps had in mind only separating or extracting the fixed gas from the oil, the fate of the

gasoline being ignored. As a necessary incident to the operation of the prior art gas traps, the intermediate mixture of gasoline was to a large extent separated from the oil and carried away with the gas. The prior gas traps made no provision to prevent this loss of the most valuable part of the oil. Until taught differently by the Trumble invention, the art proceeded on the theory that the loss of a considerable portion of the gasoline was a necessary incident to the separation of the fixed gas from the oil.

Trumble recognized the enormous loss to the oil industry growing out of this uncontrolled dissipation of gasoline incidental to the separation of the fixed gas from the oil. He set about producing a gas trap which would effectively separate the fixed gas from the oil, but which would prevent the gasoline from passing out of the oil with the fixed gas, and which would maintain the gasoline in the oil. The invention of Trumble, in its broadest aspect, was the striking discovery made by him that if a mixture of oil, gas and gasoline be maintained under pressure in the gas trap until after the separation of oil and gas had occurred, that the pressure will have a diametrically opposite effect on the gasoline and on the fixed gas. That is to say, the pressure will, on the one hand, maintain the gasoline in the oil in its liquid form, and, on the other hand, will squeeze out the fixed gas from the oil and effect a clean-cut separation. This was the introduction of an entirely new and unexpected principle in gas traps. Prior to the invention of Trumble,

such teaching as there was relating to the effect of pressure on a gas trap, led to the natural belief that pressure on a gas trap would seriously impede the separation of the fixed gas from the oil. It was an elementary principle of physics, as recognized by the so-called Law of Henry, that the solubility of a gas in a liquid increases in accordance with any increase of pressure. Naturally, it would be supposed, from the Law of Henry, that the more pressure put on a gas trap, the less efficient would be the separation of the gas from the oil, which, of course, is a primary prerequisite of a gas trap. Trumble was the first to recognize that pressure could be applied to a gas trap for the purpose of holding gasoline in the oil without interfering with the separation of the fixed gas from the oil.

The introduction to the art by Trumble of this new principle, based upon his discovery of the opposite effects of pressure on gasoline and fixed gas, was recognized by the industry to be of great commercial value. At the time of the Trumble invention, as today, gasoline is the most valuable portion of the oil. The Trumble invention disclosed for the first time how to prevent the loss and dissipation of gasoline theretofore considered necessarily incidental to the separation of the fixed gas from the oil. The Trumble invention saves for the user of the trap, the value of the gasoline that would otherwise pass away from the oil with the fixed gas. Oil is ordinarily bought and sold on a sliding scale, the price increasing as the gasoline content of the oil increases. The operator's

saving from the use of the Trumble invention appears in the increased value of his oil.

Upon the introduction of the Trumble trap, the industry recognized and appreciated the enormous saving that could be afforded by the use of the Trumble invention. Trumble gas traps went into widespread and general use, displacing other gas traps, and became, and are today, the standard gas trap in use in the oil fields of the United States and foreign countries. The evidence shows that at the time of the trial of this case, 583 Trumble traps had been sold for use in California, Texas, Louisiana, Arkansas, Oklahoma, Wyoming, and foreign countries. The importance of these traps to the oil industry may be appreciated from the testimony of the witness Paine, to the effect that one of these traps alone saved \$125 a day (over \$45,000 a year) for the Honolulu Oil Company, at Taft, California. [R. 117.]

Mr. Paine, a director of the Union Oil Company of California, and a man highly skilled in this art, testified as to the advantage of a Trumble trap employed by him, as follows:

"The ultimate effect therefore of the trap was first to conserve and utilize about one million feet per day of gas worth \$50 per day, an increase in the value of the oil of about \$60 per day, and an increase in actual oil saved from the well of about 40 barrels per day, having the value of, at that time, of about \$15 per day." [R. 79.]

The scientific theory or basis of the operation of the Trumble trap, and the reason why pressure, as discovered by Trumble, has a diametrically opposite effect on fixed gas and gasoline in a gas trap, is explained by Mr. Paine as follows:

“That is due to a rather deep question of physics that has come into importance in connection with the manufacturing or increasing of gasoline from natural gas, the principle of ‘partial pressures’ as it is called, which is this: If there are some vapors of gasoline in a gaseous state in gas and these vapors are in a comparatively small proportion, such vapors if alone not mixed with other gases may condense at comparatively low pressure. One can have a gas for instance which is a gas vapor which is condensable at 10 pounds pressure if applied to it. Now, if that gas is mixed with other gases which are practically non-condensable in proportion of 5 per cent, say a 10-pound or 20-pound pressure then applied to the gas will not condense those vapors, but the pressure must be according to increase in the ratio of this dilution. If it were present there at 5 per cent then the pressure would have to be increased twenty times that which was required to condense it when it is alone and not intermingled with these non-condensable gases.” [R. p. 80.]

That is to say, as long as the gasoline is kept as a liquid in the oil and not permitted to vaporize, a comparatively small pressure, say a pressure of 20 pounds per square inch, will hold this gasoline in the oil without any danger of its becoming a vapor. If, on the other hand, the gasoline is allowed to vaporize and to

nix with the fixed gases, pressures as high as 200 pounds per square inch must be resorted to to condense them back into a liquid. It is thus possible, by maintaining a comparatively small pressure on the interior of the Trumble trap, to simultaneously prevent the vaporization of the gasoline without materially affecting the fixed gas in the trap, since the fixed gas requires a very large pressure to effect any appreciable condensation thereof. While it is now possible for Mr. Paine to point out the reasons for the success of the Trumble invention, there is not evidence in the prior art to indicate that this was understood or appreciated prior to Trumble's practical application of this then unknown result and his disclosure of the same to the art.

A further advantage of the Trumble trap is emphasized by Mr. Paine in the clean-cut separation of fixed gas from the oil that is effected by the Trumble trap. This is important, as pointed out by Mr. Paine, because, if this separation is not clean-cut, and a portion of the fixed gas remains in the oil that is passed to the storage tank, the fixed gas (being always a gas) will thereafter percolate out of the oil and rise from the oil in the storage tank and will carry with it gasoline vapor. This is explained by Mr. Paine in his testimony herein as follows:

"The reason I will give for that will be this: That at the higher pressure, still higher pressure maintained upon that well certain gases were retained in the oil which went into the solution in the oil. Now,

these gases were always gases. They were not gasoline vapors that had been retained in the oil in virtue of maintaining this higher pressure on the trap, and those gases which are fixed gases and are incondensable under the ordinary agreement of pressure or temperature, escaped from the oil in the shipping tank, and it is altogether possible—I observed it on occasion—that the escaping of those gases carried along with them small quantities of gasoline vapor, so that I have had instances, similar instances where, through the maintaining of an unduly high pressure we arrived at quality of oil which was lower than that which would be obtained in a pressure range of from 75 to 100 pounds held on the trap." [R. 76, 77.]

Some years after the invention of Trumble, and after the Trumble gas trap had become standard in the oil fields of this country, the defendant, David G. Lorraine, invented a valve adapted for installation on a trap of the Trumble type. The defendant was familiar with the Trumble trap, and went to the owners of the Trumble trap to interest them in installing his valve on Trumble traps. The owners of the Trumble trap were not interested in the Lorraine valve, because the valve used on the Trumble trap was entirely satisfactory and they saw no reason for changing the same. Finding that he could not interest the owners of the Trumble trap in his valve, the defendant, Lorraine, proceeded to appropriate the Trumble invention, making only immaterial mechanical variations in an endeavor to escape the Trumble patent, but employing in the trap made by the defendant,

the fundamental principles discovered by Trumble and all of the advantages of the Trumble invention. Thereupon, the owners of the Trumble patent brought this suit against defendant for infringement of the Trumble patent.

The bill of complaint is in ordinary form for infringement of a patent, and prays for an injunction and an accounting. The answer of the defendant does not deny or place in issue the validity of the Trumble patent. At the trial, defendant conceded the validity of the Trumble patent. [R. 61.] The only defense was one of non-infringement; but it conclusively appeared at the trial of the case that the devices made and sold by defendant differed only in immaterial mechanical variations from the device illustrated in the drawings of the Trumble patent, and employed and appropriated to the fullest extent the invention made by Trumble.

The case was tried before the Honorable Charles E. Wolverton, sitting in the Southern District of California by special designation, and the trial consumed five days in open court. During the trial, Judge Wolverton heard the testimony of the various witnesses who testified concerning the construction, the mode of operation and the principle of the devices involved, and the advantages and results attained by the Trumble invention. During the trial, Judge Wolverton made a trip to West Alhambra, California, and attended a demonstration showing the operation of one of the infringing devices that had been sold by

the defendant. In the early stages of the trial, the defendant strenuously denied that he employed any means for placing pressure in his traps and contended, therefore, that he did not infringe upon the Trumble patent. As the trial went on, and after Judge Wolverton had attended the demonstration at West Alhambra and had heard the testimony of an official of the General Petroleum Corporation who had purchased and used a number of defendant's traps, it became obvious that this position of defendant was untenable; and finally counsel for defendant stipulated that pressure was maintained in the defendant's traps.

The case was submitted on briefs to Judge Wolverton, and the latter took the case and briefs to Portland for consideration. In the brief for defendant submitted to Judge Wolverton, the defendant stated:

"At the outset of this argument we wish to state that, for the purposes of this case, the defendant is willing to admit there is more or less pressure in its separators or traps during actual operation; so there is no need to discuss this question further.

"The only defense relied upon by this defendant in this case is that of non-infringement."

In the answer to the original bill, defendant alleged, in paragraph 12, that he had then pending an application for letters patent describing and covering the gas trap complained of by the original bill of complaint herein, which paragraph 12 further states:

"And this defendant states that the device for separating natural gas from crude petroleum which he

has made is made according to the specifications and claims made and so allowed in his said application for letters patent, and for which letters patent will be issued in due time, and which said device the defendant states does not, in any manner whatsoever, infringe the alleged patent of the plaintiffs."

Subsequent to the filing of this answer, and prior to the trial of the case, Letters Patent No. 1,373,664 (Book of Exhibits, pp. 60-65) were granted to the defendant upon the application referred to in defendant's answer. At the trial, counsel for defendant admitted that patent No. 1,373,664 was granted on the application referred to in defendant's answer [R. 52], and that it showed the device defendant was making and selling. It should, however, be noted that defendant's patent No. 1,343,664 has been reissued as Reissue No. 15,220, shown in Book of Exhibits, pages 66-74. Subsequent to the filing of the bill of complaint herein, plaintiffs discovered that the defendant had altered the construction of his device, and on the Saturday preceding the opening of the trial before Judge Wolverton, plaintiffs caused to be purchased from defendant one of defendant's latest devices (Book of Exhibits, p. 83). The construction of this trap is shown on page 81, Book of Exhibits. At the hearing, upon the suggestion of Judge Wolverton [R. 146], plaintiffs obtained leave to and filed a supplemental bill bringing before the court defendant's latest construction or type of device so purchased and charging infringement thereby. [R. 28.] The defendant

filed an answer to this supplemental bill, denying that defendant's modified device infringed upon the Trumble patent, but again failing to contest the validity of the Trumble patent. [R. 42, 43.]

The case was submitted to Judge Wolverton on March 18, 1922, and on September 11, 1922, Judge Wolverton filed a written opinion [R. 530] in detail considering and passing upon all of the contentions made before him by the defendant. This opinion is reported in 283 Fed. Rep. 806. At the outset of his opinion, Judge Wolverton states:

"The defendant does not question the validity of complainant's patent, but claims that he does not infringe, for two reasons: \* \* \*." [R. 530.]

In his opinion, Judge Wolverton refers to the original form of defendant's device, which form was alleged in the answer of the defendant to conform to defendant's patent No. 1,373,664, as "Model No. 1." Defendant's modified device, presented by the supplemental bill herein, and shown on page 81, Book of Exhibits, is referred to by Judge Wolverton as "Model No. 2." The opinion of Judge Wolverton concludes as follows:

"I find the defendant's patent infringes claims 3 and 4 of complainants' patent, that his model No. 2 infringes claims 1 to 4 inclusive, and that claim 13 is not infringed."

Upon the filing of the opinion, counsel presented to Judge Wolverton a draft of a decree, which decree

was duly entered by Judge Wolverton on September 26, 1922. [R. 543-547.] The decree herein follows the opinion of Judge Wolverton, and adjudges:

"That the validity of said patent was not denied or put in issue by defendant in the above case; that said letters patent are good and valid in law, particularly as to claims 1, 2, 3 and 4 thereof;" [Par. 1, R. 543.]

"that the apparatus made and sold by defendant referred to in this case as Defendant's Model No. 1, and described in reissued letters patent of the United States, No. 15,220 granted November 8, 1921, to defendant, infringes upon said claims 3 and 4 of plaintiff's said patent, and that the apparatus made and sold by defendant referred to in this case as Defendant's Model No. 2, infringes upon said claims 1, 2, 3 and 4 of plaintiff's said patent both when made with the nipple machined off on one side to sit closely against the partition wall as illustrated in said Model No. 2, and when made without such machining or setting, as defendant claims such devise was intended to be constructed;" [Par. 2, R. 545.] and directs an injunction and an accounting accordingly.

The assignments of error filed herein by defendant [R. 549] are prolix and totally disregard that the validity of the Trumble patent was conceded by the defendant at the trial of this case. Error is assigned, that the District Court erred "in failing and refusing to find and decree that said Letters Patent No. 1-269,134, granted on June 11, 1918, to plaintiffs, was null and void in law for want of patentable invention over the prior art."

It is a fundamental principle of equity practice that points not raised before the trial court cannot be considered by the Appellate Court:

Bell v. Bruen, 1 How. 169;  
Alviso v. U. S., 8 Wall. 337;  
National Bank v. Commissioners, 9 Wall. 353;  
Rogers v. Ritter, 12 Wall, 317;  
Klein v. Russell, 19 Wall. 433;  
Supervisors v. Lackawanna Co., 93 U. S. 619;  
Wilson v. McNamee, 102 U. S. 572;  
Wood v. Weimer, 104 U. S. 786;  
U. S. v. Amer. Bell Telephone Co., 106-7 U. S. 224.

Appellant's opening brief herein proceeds in total disregard of the issues before the District Court, and in total disregard of the admissions and testimony upon which Judge Wolverton decided this case and made his decree herein. The principal contentions made in appellant's opening brief are not based upon the record in this case, but are apparently based upon the theories of the present counsel for appellant as to what he thinks the facts ought to be, totally disregarding the evidence before Judge Wolverton. This case is before this court for determination upon the record made and presented, and we regret that most of the consideration that this court will have to give to this case will necessarily be taken up by a discussion of contentions made by appellant without regard to the record herein. For example, Judge Wolverton considered all of the evidence and explicitly found

as a fact that the maintenance of pressure on a trap for the purpose above stated, was novel and original with Trumble. There was no testimony given, or claim to the contrary made, before Judge Wolverton. In appellant's opening brief, present counsel for appellant now apparently urge that every prior patent for, and every prior gas trap, must have employed this pressure principle. Appellant's opening brief in no manner suggests where such contention is supported by any testimony in this case. The unwarranted character of such a contention is established by the testimony given by defendant himself, that gas traps may be operated with a pressure above atmospheric pressure, at atmospheric pressure, or even under a vacuum. [R. 379.] Indeed, defendant, at the early stages of the trial of this case, testified that he did not intend that pressure should be used in his trap. [R. 298.] What, then, becomes of the contention in appellant's opening brief that all prior art gas traps necessarily operated under pressure? The testimony in the record is directly to the contrary. For example, the witness Paine, a director of the Union Oil Company, testifies that when he was operating the Honolulu Oil Company at Taft, California, and the proposition of installing a Trumble trap was first presented to him, he hesitated, because he did not know what effect the use of pressure would have, and he first operated the Trumble trap without any pressure and gradually increased the pressure from day to day and felt his way along to see what the

effect would be. [R. 72.] Mr. Paine in his testimony gave figures showing the saving resulting from the use of the pressure principle in the Trumble trap, as distinguished from running the same trap without the pressure principle, thereby concretely establishing the enormous benefit of such pressure principle. [R. 76.]

Before taking up the more detailed portions of the case, the court should be fully informed as to the nature of the invention and the part which it has played in the commercial art. Judge Wolverton held that "utility has been abundantly proven by the success achieved by complainant's device." This court has repeatedly held that such commercial success is evidence of invention and entitles the patent to favorable consideration and interpretation. It is our position that the Trumble patent is for a broad and generic invention and introduces to the art a new and controlling principle, providing a device operating by a novel mode of operation and productive of results and answering a purpose prior to Trumble unthought of and not understood. Trumble was the first to conceive and provide means for separating fixed gas from oil without dissipating a substantial portion of the gasoline content of the oil. The Trumble invention provides a device which is not only a gas and oil separator, but is at the same time *a gasoline saver*. In this, Trumble was a pioneer, for he gave to the art a totally new thought.

### The Trumble Invention.

We have stated that, in its broadest aspect, the Trumble invention comprises the discovery or conception that a gas trap, if maintained under pressure, will prevent the loss of gasoline without interfering with the separation of the gas from the oil. The advantages of maintaining pressure on a gas trap having been conceived, it was necessary for Trumble to go further and devise means whereby the advantage of the pressure principle could be availed of in a gas trap. Obviously, if the mixture from the well was merely shot rapidly through a tank, the pressure feature would be of little benefit, because it would have small opportunity to effect its action on the gasoline and gas. Trumble perceived that the passage of the mixture through the gas trap must be at a reduced speed, and under such conditions, as would give the pressure element the necessary time to effect its action; in other words, the mixture as it comes from the well must be slowed down in the trap to give the pressure plenty of time to act. Trumble further saw that, to obtain the maximum benefit of the pressure principle, it was necessary to spread out or distribute the oil in order that the pressure element would have the maximum opportunity to act. He appreciated that if the mixture as it passed through the trap was kept in one bulk or body, the gas entrained in the oil must necessarily travel for a relatively long distance through the oil to escape, and the separation would be incomplete and hampered. It is the same proposition as

attempting to wring water out of a bathing-suit,—for everyone knows that the most efficient way to separate or wring water out of a bathing-suit is to divide the suit up into small portions and squeeze each portion individually.

A narrower aspect of the Trumble invention is the provision by Trumble of means to slow down and spread out the oil in its passage through the trap, thereby permitting a maximum pressure effect and the readiest separation of the gas from the oil.

The main advantage of the Trumble invention is set forth in the specification of the Trumble patent as follows:

“My invention is also effective in maintaining the lighter gravity series of the crude oil in combination with the heavier series of the oil, thereby producing from oil wells a product of lighter gravity than where the oil and gas is permitted to separate on exposure to ordinary atmospheric conditions.”

At the close of the specification of his patent, Trumble takes particular care to state that he desires to be understood as pointing out and claiming the advantage and action of the pressure principle in gas traps, as follows:

“It will be noted that the action upon the oil while flowing down the wall of the expansion chamber in a thin film under pressure permits the free, dry, gas to readily escape therefrom, while the pressure exerted upon the oil surface backed by the wall of the chamber holds the lighter liquids, such as gasoline, in com-

bination with the oil body, and I desire to be understood as pointing out and claiming this action as being of great benefit to the crude oil derived from the well on account of keeping the gasoline series in combination with the main body of the oil."

There can be no doubt that the Trumble patent clearly expresses the intent to cover the broad aspects of the Trumble invention. Having specifically set forth his invention in its broad aspect, and having stated that he wanted to be understood to claim the full benefit thereof, Trumble proceeded in his patent to describe the one form of device in which his invention could be embodied. The Trumble invention resides in the striking discovery made by Trumble that pressure, if maintained in a gas trap, would maintain the gasoline in the body of the oil without interfering with the separation of the gas. The device illustrated in the Trumble patent is not the Trumble invention, but is merely one embodiment thereof. As said by the Supreme Court in *Smith v. Nichols*, 21 Wall. 112:

“A patentable invention is a mental result.  
\* \* \* The machine, process or product is but  
its material reflex and embodiment.”

Before proceeding in his patent to describe a material embodiment of his invention, Trumble was careful to point out that:

“The accompanying drawings illustrate my invention and *one method* of its application:”

The illustrative embodiment of the Trumble invention described in the Trumble patent is best represented in figure 2 of the patent drawings. (Book of Exhibits, p. 51.) The device consists principally of a tank or expansion chamber designated by numeral 1. Oil is admitted to the expansion chamber 1 through a pipe 7 leading from the casing head 10 of a well (illustrated in figure 1 of the patent drawings, Book of Exhibits, p. 50.) As the oil enters at the top of the expansion chamber 1, it comes in contact with a spreading or distributing surface 22 which is of cone or umbrella shape. The passage of the incoming mixture is retarded by the cone and the oil, distributed into a relatively thin body, is directed to the inner surface of the shell of the expansion chamber 1. The mixture passes downwardly through the expansion chamber in a thin body, and during such passage it is acted upon by pressure, the gas readily escaping from the oil, and the gasoline being maintained in the oil by the pressure. The oil flows into the bottom of the expansion chamber 1 and passes therefrom through the outlet 12, the level of the oil in the chamber being maintained by a valve 41 controlled by a float 43. The gas passes upwardly from the expansion chamber to the under side of the cones and out the pipe 10. The gas outlet pipe 10 is provided with a pressure regulating valve 11 (illustrated in Figure 1 of the patent drawings; Book of Exhibits, p. 50) to maintain on the trap the desired pressure of the well. To regulate such pressure to any desired

degree, the pressure regulating valve 11 is provided with an adjustable weight.

Comparing the particular device illustrated in the Trumble patent drawings with the broad aspects of the invention of Trumble, and remembering that Trumble explicitly pointed out that his patent drawings illustrate only "one method" of embodying his invention; we find that the device of the patent drawings provides means for maintaining pressure within the chamber (the pressure regulating valve 11 controlling the natural gas pressure of the well), and provides means for slowing down and spreading out the oil to afford an opportunity for the pressure to act thereon (the cones 22 and 22a). Trumble is careful in his patent specification to state that the cones 22 and 22a are merely examples of means for dividing or spreading the oil, stating:

"Oil dividing means are provided interior of the expansion chamber, *such as* cones 22 and 22a."

This statement is further evidence that Trumble appreciated and intended to claim the full benefit of the broadest aspect of his invention, and that the arrangement illustrated in his patent drawings was by way of example only.

The intent of Trumble to cover the broad aspect of his invention is further evidenced by the claims of his patent. Claim 4 is one of the claims held by Judge Wolverton in this case to have been infringed, both by the original and modified types of defendant's

infringing trap referred to by Judge Wolverton as Model 1 and Model 2. Claim 4 reads as follows:

“In an oil and gas separator, the combination of an expansion chamber, means for delivering oil and gas into the chamber, means for maintaining pressure within the chamber, means for drawing oil from the chamber, and means within the chamber adapted to cause the oil to flow in a thin body for a distance to enable the gas contained and carried thereby to be given off while the oil is subjected to pressure.”

It is apparent from a reading of this claim, that Trumble intended to avail himself of the full benefit of his invention, and that the Patent Office, in granting the claim, recognized and approved of such intent. Analyzing the claim into its elements, it will be found that none of these elements are restricted specifically, and that each of the elements expressly avails itself of various equivalents. For example, the first element is “an expansion chamber,” without limitation as to any particular type of expansion chamber. The next element is “means for delivering oil and gas into the chamber,” likewise unlimited as to the form or details thereof. The next element consists of “means for maintaining pressure within the chamber,” and such element is obviously not limited to any particular form or detail of valve or other mechanism. The next element of the claim is “means for drawing oil from the chamber,” and by its terms contemplates and includes various specific arrangements. The last element of the claim is “means within the chamber adapted

to cause the oil to flow in a thin body for a distance to enable the gas contained and carried thereby to be given off while the oil is subjected to pressure." This last element could not more explicitly or accurately convey to the reader the crux of the Trumble invention. It embodies the slowing down and spreading of the oil to permit the operation of the pressure maintaining principle. Coupled with the statement above quoted from the Trumble specification, wherein Trumble states that the cones 22 and 22a are "oil dividing means," the intent of Trumble to avail himself of the full benefit of the various and sundry specific arrangements that could be provided for this purpose, is made manifest. It is absurd to contend that Trumble's retarding and spreading invention is limited to any particular form of surface. Any number of surfaces are adaptable.

Claims 1, 2 and 3 of the Trumble patent, also held by Judge Wolverton to have been infringed, are directed in varying language to the broad aspect of the Trumble invention. The differences in phraseology between these various claims will appear best from a reading thereof, and, for our purpose here, need not be repeated as the differences between these claims are unimportant in this case.

The Trumble invention is of a fundamental and pioneer character, for it introduces to the art a new principle productive of a result never before attained. It is not limited to specific forms or details of construction. The Trumble patent claims are clearly

and definitely drawn, with a breadth of scope adequate to protect Trumble in his invention. The Trumble invention, and the scope to be accorded to the Trumble patent, may be paraphrased by the words of the Supreme Court in *Winans v. Denmead*, 15 How. 340, as follows:

“Its substance is a new mode of operation, by means of which a new result is obtained. It is this new mode of operation which gives it the character of an invention, and entitled the inventor to a patent; and *this new mode of operation* is, in view of the patent law, *the thing entitled to protection.*”

(14 Law. Ed. 721.)

In *Winans v. Denmead, supra*, the Supreme Court further said:

“There being evidence in the case tending to show that other forms do in fact embody the plaintiff’s mode of operation, and, by means of it, produce the same new and useful result, the question is, whether the patentee has limited his claim to one out of the several forms which thus embody his invention.

“Now, while it is undoubtedly true that the patentee may so restrict his claim as to cover less than what he invented, or may limit it to one particular form of machine, excluding all other forms, though they also embody his invention, yet such an interpretation should not be put upon his claim if it can fairly be construed otherwise, and this for two reasons:

“1. Because the reasonable presumption is, that, having a just right to cover and protect his

whole invention, he intended to do so. (Haworth v. Hardcastle, Web. P. C. 484.)

“2. Because specifications are to be construed liberally, in accordance with the design of the Constitution and the patent laws of the United States, to promote the progress of the useful arts, and allow inventors to retain to their own use, not anything which is matter of common right, but what they themselves have created. (Grant v. Raymond, 6 Pet. 218; Ames v. Howard, 1 Sumn. 482, 485; Blanchard v. Sprague, 3 Id. 535, 539; Davoll v. Brown, 1 Wood & M., 53, 57; Parker v. Haworth, 4 McLean, 372; Le Roy v. Tatham, 14 How. 181, and opinion of Parke, Baron, there quoted; Neilson v. Harford, Web. P. C. 341; Russell v. Cowley, Id. 470; Burden v. Winslow, decided at the present term, 15 How.)”

(14 Law Ed. 721.)

Judge Wolverton, after a full consideration of all the evidence in the case, concluded that the Trumble invention introduced a new principle to gas traps and obtained a new result:

“It is argued that the principle of subjecting oil to pressure, for the purpose of keeping lighter hydrocarbons in solution in the oil while the dry gas constituent separates from the body of the oil, is old, but this overlooks the theory of complainants that they have discovered a more efficient way of separating the gas from the oil, whereby a greater proportion of oil value is secured than had theretofore been derived by the use of any trap in existence or previously operated.” [R. 541.]

Judge Wolverton also clearly recognized the character of the Trumble patent as a combination patent:

“It must be observed that we are dealing with a combination patent, and all the elements must be read with reference thereto.” [R. 539.]

Under these circumstances, the Trumble patent is entitled to a generous interpretation and protection against the use of mechanical equivalents thereby to cover and protect the patentee in the new mode of operation and principle discovered and introduced by him. As said by this court in *Smith Cannery Machines Co. v. Seattle-Astoria I. W.*, 261 Fed. 85, at page 88:

“Where a combination patent marks a distinct advance in the art to which it relates, as does the appellant’s invention here, the term ‘mechanical equivalent’ should have a reasonably broad and generous interpretation, and protection against the use of mechanical equivalents in a combination patent is governed by the same rules as patents for other inventions. *Imhaeuser v. Buerk*, 101 U. S. 647, 25 L. Ed. 945.”

### Infringement.

The truth as to the mode of operation of defendant’s infringing trap is best obtained from the description thereof contained in the patent applied for by defendant before this litigation arose. In his answer filed in this case, defendant has stated that his device “is made according to the specifications and claims” now embodied in his patent. [R. 14.] The defend-

ant's patent No. 1,373,664 contains a full disclosure of the construction of defendant's infringing trap "Model 1" and of the mode of operation thereof, and is illustrated in figure 4 of the drawings of defendant's patent reproduced on page 61, Book of Exhibits. This trap comprises a tank or expansion chamber 2 to which oil from a well is introduced at the top of the expansion chamber through a pipe 14. Upon entering the expansion chamber 2, the progress of the oil is retarded by an inclined baffle-plate 17, which slows down the oil and distributes the same upon the inner surface of the shell of the expansion chamber 2. The oil passes to the bottom of the expansion chamber and leaves the tank by means of a pipe 33 controlled by a valve 34 operated by a float 56 as shown in figure 1, Book of Exhibits, page 60. The gas passes up to the top of the expansion chamber 2 and out through a gas pipe variously numbered 23, 25 and 27 in figure 1. Pressure is *maintained* in the trap by means of a gas pressure regulating valve 28, shown in figure 3, Book of Exhibits, page 60, which is exactly the same in construction and operation as the valve 11 of Trumble, even having an adjustable weight thereon.

The identity of mode of operation between the defendant's infringing trap and the Trumble trap, and the full extent to which the infringing device appropriates the invention of Trumble in all its aspects, is immediately apparent from a reading of the specification of the Lorraine patent. Indeed, the Lorraine pat-

ent extolls the advantages of maintaining pressure in the trap as follows:

“As above mentioned there is maintained in the receptacle a gas pressure as determined by the adjustment of the pressure regulating valve 28 \* \* \*” (Book of Exhibits, p. 63, lines 111 to 114.)

“A further object of the invention is to provide means for maintaining a pressure continuously on the oil or emulsion as it is continuously admitted to the separating chamber so that the emulsion may be subjected to sufficient pressure to express the gaseous constituent of the emulsion from the mixture.” (Book of Exhibits, p. 62, lines 30 to 37.)

“From the above it will be seen that I have provided a method for separating or facilitating the separation of the gas and oil and separately discharging the same from emulsions; and furthermore have provided a method in which, by maintaining a predetermined pressure in the oil receptacle, the latter is subjected to pressures having the effect of expressing the gaseous content from emulsions, the gaseous constituent in the emulsion being driven from the denser liquids by the increase in the pressure on the oil within the receptacle 2. This, therefore, prevents the loss of the valuable gaseous constituent *such as occurs in apparatus in which the oil passes immediately from a well or other source to an apparatus in which it is subject only to atmospheric pressure.*”\* (Book of Exhibits, p. 64, lines 41 to 63.)

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\*N. B. How can appellant reconcile its brief with this recognition that prior traps operated without pressure?

We cannot conceive of a fuller or more explicit demonstration that the Lorraine trap, in theory and in mode of operation, incorporates the very crux and broadest aspect of the Trumble invention. The defendant in his patent recognizes the value of the pressure principle first conceived by Trumble, and expressly recognizes the diametrically opposite effects in a gas trap of pressure upon gasoline and gas. It should be borne in mind that the defendant's patent was applied for many years after the Trumble trap had become standard in the oil fields of this country, and *pro tanto* vouches for the utility and advantage of the novel principle first conceived of and incorporated in a gas trap by Trumble and fully described in his patent.

Passing to the narrower aspect of the Trumble invention, it is found from the Lorraine patent specification that defendant's infringing device coincides even with the narrower aspect and appropriates the narrower as well as the broader advantages of the Trumble invention. It will be remembered that the narrower aspect of the Trumble invention was the conception of slowing down and spreading out the mixture in order that the pressure might effectively operate thereon. In the Lorraine patent specification, it is stated that:

“the oil is showered onto the adjacent portion of the receptacle wall whence it flows downwardly between the wall and the partition 19, any gases being liberated rising to the top of this compartment and passing over.”

Here is identity with the narrower aspect of the Trumble invention, to-wit, the slowing down and spreading out of the oil mixture in order that the pressure may act thereon to separate the gas from the oil and maintain the gasoline in the oil.

In appellant's opening brief, pages 95 to 97, inclusive, counsel shows and describes a form of trap called by him the Tonner pressure trap. A comparison of the trap on page 96 of appellant's opening brief with figure 4 of the Lorraine patent, found on page 61 of the Book of Exhibits, shows that the so-called Tonner trap is, in all substantial particulars, the trap shown in the Lorraine patent. Moreover, as counsel ingeniously states on page 95, the court's description of defendant's patented device as shown and described in the Lorraine specification and drawing, comes much nearer to describing the Tonner No. 3 separator than does the exact drawings of defendant's patent. This Tonner trap was treated by all parties and the court as being the device described in defendant's patent. The Tonner trap, for all purposes identical with the construction illustrated in the defendant's patent, was referred to in the lower court as "Model 1." In the brief filed before Judge Wolverton, counsel for defendant stated:

"Plaintiffs have brought in two different models of defendant's device, each of which differs materially from the other in construction and action. We will, therefore, discuss each of these separately, and will designate the one described as being located on well No. 3 of the Tonner lease as "Model No. 1," and the

one which was used in the demonstration, as "Model No. 2."

The device referred to as "Model No. 2" is the modified form of defendant's device presented by the supplemental bill herein, and illustrated in Plaintiffs' Exhibit No. 11. (Book of Exhibits, p. 81.)

#### Model No. 1.

In his opinion herein, Judge Wolverton describes the infringing device "Model No. 1" as follows:

"Defendant's patent, referred to in counsel's brief as Model 1, has an inner partition set away from the wall on one side more than one-third the distance of the diameter of the chamber, and extending below the oil level. To this partition, at some distance from the top of the chamber, is attached a baffle-plate extending downward on an incline of perhaps 45 degrees, and to within an inch and a half or two inches from the wall for the entire segment cut off by the partition. The oil inlet, consisting of a pipe, extends downward to within a short distance of a baffle-plate. The pipe has two openings, so that the stream of oil is divided and projected on the baffle-plate in two directions laterally. The device is provided with a gas take-off above the partition and one from underneath the baffle-plate; all to pass off eventually from the upper portion of the major chamber." [R. 537.]

The inclined baffle-plate employed in this device to slow down and spread out the incoming liquid mixture, is illustrated at 17 in defendant's patent. (Book of Exhibits, p. 61.) The evidence in the case is clear,

Judge Wolverton found, that means were employed in this model 1 type of trap to maintain a pressure on the trap. The defendant's patent illustrates the gas pressure regulating valve 28 for the gas outlet pipe. (Book of Exhibits, p. 60.) It was also demonstrated to Judge Wolverton that a gas outlet valve 26 shown in pipe 25 in figure 1, Book of Exhibits, page 60, constituted a further means for maintaining a pressure on this trap. [R. 371.] Mr. McLaine, the director of production for the General Petroleum Company, having charge of the Tonner lease, testified as follows:

“Q. (By Mr. L. S. Lyon): After the adjustment what pressure, if you remember, was maintained in that trap?

A. I believe it was in the neighborhood of 28 pounds, as nearly as I can remember.” [R. 512.]

Judge Wolverton's conclusion as to the infringing trap “Model No. 1” is as follows:

“The defendant's trap, Model No. 1, infringes, in that the baffle-plate furnishes a surface down which the oil flows, with pressure against the oil, by which the gas escapes from the oil and passes out of the chamber by the take-off.” [R. 541.]

The description in appellant's opening brief of the splashing of the incoming oil in Model No. 1, is not supported by any evidence in the case whatsoever, and is the volunteered imagination of appellant's counsel. Judge Wolverton heard the witnesses, observed the devices, and his finding of fact is controlling.

“In such a case, the trial court having the advantage of seeing and especially examining the material which it is claimed infringes, an Appellate Court, without such advantage, will not disturb the conclusion reached, unless it appears clearly that the finding is against the obvious weight of the testimony.”

*Diamond Patent Co. v. Webster Bros.*, 249 Fed. 155, at 158.

‘The court heard the evidence of the witnesses, and had before it alleged infringing devices, as well as the ring-shaped blanks out of which appellant makes them. The evidence of the witnesses was contradictory, and, in so far as the decree is predicated thereon, we cannot disturb it.’”

*Blettner v. Gill*, 251 Fed. 81 at 82.

#### Model No. 2.

The modified form of defendant’s infringing device is described by Judge Wolverton in his opinion herein as follows:

“Model 2 contains a like partition to that described in Model 1. The oil inlet consists of a pipe extending into the side of the minor chamber, supplied with what is called a nipple, bell-shaped, to allow the oil to spread when discharged into the chamber. The nipple is set at an angle with and extended within proximity of the inner wall, the effect of which is, when the oil is discharged into the chamber, to carry part of it down the inner partition wall, part down the outer wall, at and near the intersection of the inner with the outer wall, and part of it down by

gravity without reaching either wall. The device is provided with a gas take-off above the nipple." [R. pp. 537, 538.]

Model No. 2 is illustrated in Plaintiffs' Exhibit 11 (Book of Exhibits, p. 81.) The defendant was asked how many traps like "Model No. 1" he had made, and answered, "Just one." [R. 253.] The defendant testified that the modification of his trap from Model No. 1 to Model No. 2, comprises taking out the baffle 17 [R. 253], and in substituting for the form of inlet and baffle shown in defendant's patent, a reducing elbow, and that otherwise "the valves and all the mechanism hasn't been changed." [R. 257.] To settle a conflict which had arisen in the testimony as to the purpose and result attained by the reducing elbow in the Model No. 2 type of infringing device, on March 24, 1922, Judge Wolverton attended a demonstration exhibiting the operation of a Model No. 2 trap. This trap had been sold a few days before by the defendant, and was cut open with an acetylene torch in order that Judge Wolverton might observe the operation within the trap. At the conclusion of the demonstration, Judge Wolverton questioned the defendant as to what had been observed at the demonstration, and compelled the defendant to admit that the effect of the reducing elbow was to widen or spread out the incoming stream, causing part of the oil to flow down the inner partition and part to flow down the wall of the trap.

“The Court: There was oil thrown over here though?

Mr. Lorraine: On the wall, yes, Your Honor.

The Court: On the outer wall?

“Mr. Lorraine: Yes, sir; I admitted that on the vertical partition it was thrown on the wall.

\* \* \* \* \*

The Court: What proportion of it ran down the partition and what proportion down the wall, as you observed it?

Mr. Lorraine: I should say it was nearly equally divided.” [R. pp. 358, 359.]

The finding of fact made by Judge Wolverton in view of the opportunity afforded him to personally examine the internal operation of one of the Model No. 2 infringing devices, cannot be assailed by defendant on this appeal.

*Diamond Patent Co. v. Webster Bros., supra.*

Judge Wolverton's opinion concludes as follows as to Model No. 2:

“So of defendant's device, Model 2, the oil is injected in part at least, against the partition, as well as against the chamber wall, so that it flows down thereon with pressure on the moving oil, from which the gas escapes. While part of the oil is reduced to a spray which falls by gravity to the settled fluid below, its action does not obviate the objectionable feature of a part flowing down the partition and a part down the wall. I am of the opinion also that defendant's trap will likewise infringe with the nipple constructed, as he claims it should be, according to drawings and specifications.” [R. pp. 541, 542.]

The latter sentence of Judge Wolverton refers to the fact that in the Model 2 device observed by him at West Alhambra, the defendant had machined off the edge of the reducing elbow in order that the reducing elbow should fit closely against the inner partition. The defendant asserted that he did not intend to so position the reducing elbows in his Model No. 2 traps. This would, of course, be immaterial if true, and Judge Wolverton so held. Judge Wolverton followed an elementary principle of patent law in ruling that:

“While part of the oil is reduced to a spray which falls by gravity to the settled fluid below, its action does not obviate the objectionable feature of a part flowing down the partition and a part down the wall.”

It is well settled that infringement resides in the appropriation of a part of a patented invention, although the whole is not taken.

30 Cyc. 977, note 15.

“Clearly, the mere interposition of squeezing surfaces in the defendant’s machine is not a substantial difference, but one purely formal; and, if it is, it is none the less an infringement. The law is well settled that infringement is not avoided by dividing an integral element of a patent machine into distinct parts so long as the function and operation remain substantially the same; and the same rule applies as to the joinder of two elements into one integral part accomplishing the purpose of both, and no more, so long as the same results are accomplished. *The impairment of the function of a part of a patented structure*

*by omitting a portion will not avoid infringement, nor will a mere change in form where the principle of operation is preserved and appropriated.* Winans v. Denmead, 15 How. 330, 342, 14 L. Ed. 717; Nathan v. Howard, 75 C. C. A. 97, 143 Fed. 889, and numerous cases there cited."

*Manton-Gaulin Mfg. Co. v. Dairy Machinery & C. Co.,* 238 Fed. 210, at 215.

Infringement of claim 4 of the Trumble patent by both Models No. 1 and No. 2, is apparent from a comparison of the claim with the structures of the infringing devices. Claim 4 of the Trumble patent has the following elements:

- (1) An expansion chamber;
- (2) Means for delivering oil and gas into the chamber;
- (3) Means for maintaining pressure within the chamber;
- (4) Means for drawing oil from the chamber;
- (5) Means within the chamber adapted to cause the oil to flow in a thin body for a distance to enable the gas contained and carried thereby to be given off while the oil is subjected to pressure.

The wording of this claim is clearly broad enough and comprehensive enough to include both Models Nos. 1 and 2. It cannot be denied that both models of the infringing device embody each of the elements of this claim. There is no difference between Model No. 1 and Model No. 2 in regard to the embodiment

of the elements of the Trumble claim, except that the two models differ in the particular form of the "means within the chamber adapted to cause the oil to flow in a thin body for a distance to enable the gas contained and carried thereby to be given off while the oil is subjected to pressure." In Model No. 1, this element comprises the inclined baffle-plate, while in Model No. 2, this element comprises the reducing elbow. The functions of the inclined baffle-plate and the reducing elbow are the same and coincide exactly with the function of the cone 22 of the Trumble patent. In this manner, both models of the infringing device appropriate the narrower aspect of the Trumble invention which resides in Trumble's conception of slowing down and spreading out the oil to give an effective opportunity for the action of the pressure maintained in the trap.

Notwithstanding the fact that the validity of the Trumble claims has been conceded in this case and is not in issue, and notwithstanding the clear wording of the claims, appellant's opening brief contains a discussion under the title "Estoppel by Proceedings in the Patent Office." A reading of the discussion in appellant's opening brief under that title, demonstrates that appellant cannot find anything in these claims of the Trumble patent that does not apply fully and directly to both forms of the infringing device. Appellant relies solely upon statements made by way of argument to the Patent Office during the prosecution of the application for the Trumble patent, *which argu-*

*ment is not reflected in the claims as granted by the Patent Office.* Since the claims held to be infringed in this case were actually granted in their present form by the Patent Office without amendment, and since infringement of these claims follows from their precise language, any proceedings leading up to these claims are immaterial in this case. This is not a case where it was necessary to place a limitation in a claim in order to obtain its allowance, and, thereafter, the patentee attempts to escape such limitation. Here we accept the claims as they are written, without any attempt to enlarge their scope. Mere argument to the Patent Office, if not reflected in the claims, is immaterial. A leading case by this court on this point is:

*Fullerton Walnut Growers' Ass'n v. Anderson-Barnegrover Mfg. Co.*, 166 Fed. 443,

in which the patent covered a certain process of bleaching nuts, involving the addition of a weak acid to a certain solution and plunging the nuts into the solution. In the Patent Office, the attorney for the applicant in his arguments "insistently pointed to the fact that the applicant's invention differed from all prior bleaching processes in that the nuts are plunged into the bleaching solution *at the very instant of adding a weak acid thereto.*" (P. 451.) The patent as granted contained a claim which was not limited to plunging the nuts into the bleaching solution at the instant of adding the acid. As the scope of the invention was not so limited, and as the claim was not

so limited, the court held that the argument made to the Patent Office was immaterial, stating:

“The question arises whether those claims are to be limited in their scope by the arguments or admissions made by the patentee’s attorney in the proceedings in the Patent Office. It is true that where an applicant presents to the Patent Office a claim, which is rejected as being anticipated by prior patents or publications, and in consequence thereof *he amends his claim* so as to avoid such anticipation, he may not thereafter contend that the claims are to receive the construction to which they would have been entitled if such limitation or restriction had not been inserted. *But in the present case there was no amendment or restriction of the claims.* They were allowed in the terms in which they were originally formulated.

“In the light of these authorities, it is clear that the claims of the patent, unambiguous as they are, are to be interpreted according to the meaning of their own terms, *and are not to be controlled or limited by any argument or representation made in the Patent Office by the applicant’s attorney as to the scope of the invention or the features wherein it differs from the prior art.*”

To the same effect is the decision of the Circuit Court of Appeals for the 2nd Circuit in

*Auto Pneumatic Action Co. v. Kindler & Collins*, 247 Fed. 323, at 328,

in which the court said:

“so far as we know there is no decision which goes further than to hold that, where the appli-

cant has assented to *changes in a claim* upon a reference in the Patent Office, he may not, by subsequent construction, resort to the elements which he has thus abandoned. *We are far from being willing to establish a rule that arguments made in the Patent Office by the applicant to the examiner are to be taken as a measure of his patent.* We read the claims as they are written, like the language of any other formal statement drawn up as the final memorial of the parties' intentions, and we decline to consider what was said arguendo during the passage of the case through the Patent Office, or any other of the preliminary negotiations which the patent itself was intended to subsume."

American Caramel Co. v. Thomas Mills & Bro.,  
149 Fed. 743, 747;

Boyer v. Keller Tool Co., 127 Fed. 130-134;  
A. G. Spalding & Bro. v. Wanamaker, 256 Fed.  
530-3,

and many other cases to the same effect.

Claims 1, 2, 3 and 4 of the Trumble patent, the claims held by Judge Wolverton to be infringed in this case, were allowed as filed. (Book of Exhibits, p. 32). No amendments were ever made to claims 1, 2, 3 or .4, and no claims involving the Trumble principle of maintaining pressure were rejected by the Patent Office and cancelled. Judge Wolverton carefully considered the contention made by appellant as to the effect of the arguments made in the application for the Trumble patent. In his opinion, Judge Wolverton rules as follows on this matter. R. 532:

"Turning to the file-wrapper showing the proceedings before the examiner, claim 1 as made in the application contains the element 'means for reducing the oil into a finally divided condition to reduce the tension on the gas contained therein.' Claim 2, 'Oil dividing means arranged in the expanding chamber to reduce the oil to a thin film-like condition.' Claim 3, 'gas freeing means consisting of means to reduce the oil to a thin film arranged within the expanding chamber;' and claim 4, 'A cone arranged near the top of such chamber to receive the incoming oil and spread it over the wall of the chamber in a thin film-like form.'

"When the application came to the examiner, claims 1, 2 and 3 were each rejected on the application on the patents of Barker and Bray, and 4 on patent of Bray. The action of the examiner induced the petitioner to add the following to his specifications:

"It will be noted that the action upon the oil while flowing down the wall of the expansion chamber in a thin film under pressure permits the free, dry gas to readily escape therefrom, while the pressure exerted upon the oil surface backed by the wall of the chamber holds the lighter liquids, such as gasoline, in combination with the oil body, and I desire to be understood as pointing out and claiming this action as being of great benefit to the crude oil derived from the well on account of keeping the gasoline series in combination with the main body of oil."

"Also to cancel claims 1, 2, and 3, and to insert claims 1, 2, 3 and 4 as now contained in the issued patent.

“The examiner again rejected claims 1 to 4 inclusive, on patent of Bray, and 5 to 13, inclusive, were held not to patentably distinguish from Bray, and accordingly were rejected. In response to these objections, the applicant added claims 13 and 14 as now contained in the patent. As presented, the examiner again rejected claims 14 and 15, being claims 13 and 14 in patent, also claims 1 to 13, inclusive, as not to patentably distinguish from references of record. The applicant replied to the action of the examiner, stating among other things, that the ‘applicant’s invention consists of a containing vessel, an imperforate cone adapted to spread the whole body of the oil to the outer edge of the vessel, and means for taking off gas from the interior of the cone near the center of the vessel’; this to distinguish from the Bray patent. He says, further: ‘Moreover Bray does not take off his gas below his screens, and the claims of Trumble are quite specific in stating that the gas is taken off inside the cone.’

“The matter coming again before the examiner, on reconsideration, all the claims were allowed as contained in the patent. Claim 9 (original claim 8) was rejected as met by patent of Bray, and has been eliminated from the patent.

“A patentee, where he is required by the rulings of the Patent Office to modify and restrict his claims, to obviate anticipation by previous patents, is by the limitations he thus imposes upon such claims, and where the patent is for a combination of parts, his claims must be limited to a combination of all the elements which he has included in his claims as necessarily constituting that combination. Phoenix Caster Co. v. Spiegel, 133 U.

S. 360, 368; New York Asbestos Mfg. Co. v. Ambler Asbestos A. C. C. Co., 103 Fed. 316. And it was said in Roemer v. Peddie, 132 U. S. 313, 317:

“‘When a patentee, on the rejection of his application, inserts in his specification, in consequence, limitations and restrictions for the purpose of obtaining his patent, he cannot, after he has obtained it, claim that it shall be construed as it would have been construed if such limitations and restrictions were not contained in it.’

“See also, National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co., 106 Fed. 693, 714, where the court adds:

“‘But this is the limit of the estoppel. One who acquiesces in the rejection of his claim because it is said to be anticipated by other patents or references is not thereby estopped from claiming and securing by an amended claim every known and useful improvement which he has invented that is not disclosed by those references.’

“Two thoughts were uppermost with the patentee in making the changes indicated: First, to avoid the objection with reference to Barker and Bray with means for reducing the oil into a finely divided condition; and, second, to confine the oil in its flow down a wall or surface with *maintained pressure* meanwhile. The theory of the patentee is obviously that, pressure *being maintained*, the dry gas will readily escape from a thin film or body of oil passing down and against a wall or other surface, without at the same time taking off the lighter liquids, such as gasoline, which will yet remain in the crude oil and add to its value.

"The limitation and restriction which the patentee has imposed upon his patent must be gathered from his addition to his specifications and the claims which were finally approved by the examiner. He says in the added specifications that the free, dry gas readily escapes, while the pressure exerted upon the oil surface, backed by the wall of the chamber, holds the lighter liquids in the oil body. In his claims, however, he asserts a broader scope for his invention, as in claim 3, which comprises 'the combination of an expansion chamber having a surface adapted to sustain a flow of oil thereover in a thin body, means for distributing oil on to such surface, pressure-maintaining means arranged and adapted to maintain pressure on one side of the flowing oil.' All this was approved and allowed by the examiner.

"Construing the whole together, the added specifications and the claims, I am impressed that the patentee is not confined to means of causing the oil to flow down the outer wall of the chamber, but that his patent includes any means that will cause the oil to flow down any surface as well, such as a baffle-plate or inner partition or wall, which is reached after the emulsified oil enters the chamber. I think therefore, the patentee is not estopped by the proceedings before the Patent Office to insist upon the broader claims."

### The Prior Art.

In view of the fact that defendant has conceded and has failed to deny the validity of the claims of the Trumble patent in issue, and in view of the fact that these claims are certainly broad enough to include

both Model 1 and Model 2 of the infringing device, we fail to perceive any force or materiality in considering the prior art. However, almost all of appellant's opening brief is devoted to construing the prior art patents in an endeavor to show by some process of implication they contain and disclose something, which Judge Wolverton has expressly found is not contained therein, and something which no witness in the case has in any manner attempted to testify is contained therein. The prior patents referred to in appellant's opening brief are mere paper patents, and there is no evidence showing that any successful device has ever been made in accordance with any one of them.

“The novelty of an invention is not negatived by a prior useless process or thing, nor is anticipation made out by a device which might, with slight modification, be made to perform the same function. The invention must have been complete, and capable of producing the result. One should not be deprived of the results of a successful effort merely because some one else has come near it.”

*Diamond Patent Co. v. S. E. Carr. Co.*, 217 Fed. 400, at 405. (9th C. C. A.)

If there was any incidental use of pressure in any of these prior patents, it was accidental, not recognized by the patentee, and no disclosure thereof made to the public. The record in this case shows that there was no trap in public use in the art at the time Trumble made his invention, that operated on the principle of maintaining pressure, and that Trumble's ntroduction

to the art of that principle was immediately recognized as of controlling importance and benefit. The prior patents, to which a great portion of the appellant's opening brief is devoted, were thoroughly considered by Judge Wolverton. As has already been pointed out, it is not seen wherein they have any bearing on the claims in the Trumble patent, inasmuch as the validity of the patent is admitted, and inasmuch as the language of the claims is plain and requires no interpretation to include both forms of the infringing device. Trumble was the first to suggest that pressure *be maintained* on a trap to hold the gasoline in the oil and express the fixed gas from the oil. We challenge appellant to point out this suggestion in any of the prior patents referred to in appellant's brief. The ultimate effect of the argument made in appellant's opening brief is that necessarily, in the use of the prior devices, pressure was to some extent maintained. This is not sufficient, under the law, to constitute an anticipation of the Trumble invention.

A controlling decision precisely in point was rendered by the Supreme Court on February 19, 1923, in the case of

*Eibel Process Co. v. Minnesota & Ontario Paper Co.*, (not yet published).

The patent in that case before the Supreme Court was on a paper-making machine, and the invention consisted in lifting the feed end of the machine so that gravity assisted the machine in transporting the paper pulp during the operation of the machine. It was

argued to the Supreme Court that machines had been so positioned, in the prior art, as to necessarily give the same effect. The Supreme Court sustained the patent, reversed the Circuit Court of Appeals, and said:

“It is contended on behalf of the defendant that whether Barrett and Horne perceived the advantage of speeding up the stock to an equality with the wire, yet the necessary effect of their devices was to achieve that result and therefore their machine anticipated Eibel. In the first place we find no evidence that any pitch of the wire, used before Eibel, had brought about such a result as that sought by him, and in the second place if it had done so under unusual conditions, accidental results, not intended and not appreciated, do not constitute anticipation. Tilghman v. Proctor, 102 U. S. 707, 711; Pittsburgh Reduction Company v. Cowles Electric Co., 55 Fed. Rep. 301, 307; Andrews v. Carman, 13 Blatchford 307, 323.”

The controlling facts referred to by the Supreme Court in the above case are exactly in accord with the facts in this case. In the first place, there is no evidence in the record before this court that the pressure appellant seeks to imply in the prior art patents, “brought about such a result as that sought by him” (Trumble). In the second place, if any such result did accrue, it was “not intended and not appreciated,” and “does not constitute anticipation.”

In spite of the obvious fallacy in fact and law, of the contentions urged by appellant as to the prior patents, we will briefly discuss the same in order that the

court may not be misled by the wealth of misinterpretation placed thereon by counsel. We regard the following points as elementary patent law.

*Point One.* Novelty is not negated by any prior patent or printed publication unless the information contained therein is full enough and precise enough to enable any person skilled in the art to which it relates, to perform the operation or make the thing covered by the patent sought to be anticipated. Walker on Patents (5th Ed.) Sec. 57 citing:

Seymour v. Osborne, 11 Wall. 516;  
Cawood Patent, 94 U. S. 704;  
Downton v. Milling Co., 108 U. S. 466;  
Eames v. Andrews, 122 U. S. 66.

Each of the prior patents referred to in appellant's opening brief can be scanned with the most careful scrutiny without finding therein any appreciation or disclosure of Trumble's discovery, that by maintaining pressure on a gas trap, the gasoline can be maintained in the oil and the fixed gas expressed from the oil.

*Point Two.* Novelty is not negated by anything beneficially incapable of the function of the subject of the patent, even though apparently similar thereto. Walker on Patents (5th Ed.) Sec. 65, citing:

Crown Cork & Seal Co. v. Ideal Stopper Co.,  
123 Fed. 666;  
Kirchberger v. Am. Acetylene Co., 124 Fed. 764;  
Dececo Co. v. Gilchrist Co., 125 Fed. 293;  
Farmers' Mfg. Co. v. Spruks Mfg. Co., 127  
Fed. 691.

There is no evidence before this court indicating that any of the prior patents discussed in appellant's opening brief could be used to perform the function of the Trumble patent, even though some of these devices might be similar in appearance to the Trumble device.

*Point Three.* Novelty is not negated by any prior accidental occurrence or production, the character and function of which was not recognized until later than the date of the patented invention sought to be anticipated thereby. Walker on Patents (5th Ed.), Sec. 67, citing:

- Tilghman v. Proctor, 102 U. S. 711;  
Ranson v. New York, 1 Fisher 256;  
Pelton v. Waters, 1 Bann. & Ard. 399;  
Andrews v. Carman, 2 Bann. & Ard., 277.

Appellant's opening brief attempts to interpolate into the prior patents discussed by him by a process of implication, *the maintenance of pressure*. There is not an iota of evidence in this case supporting this implication. The implication is as unsupported as is the representation made in appellant's opening brief that all prior gas traps necessarily operated by the maintenance of pressure. This is absolutely contrary to the record. Indeed, the defendant's patent expressly recognizes the existence of gas traps "in which the oil passes immediately from a well or other source to an apparatus in which it is subject only to atmospheric pressure." (Book of Exhibits, p. 64, lines 55-63.) It will be found, from a careful scrutiny of each of the

prior patents discussed by defendant's counsel, that none of them in any way appreciate or rely upon the maintenance of pressure as a means of maintaining the gasoline in the oil and as a means of expressing the fixed gas from the oil, and each of these patents will be found to have a different mode of operation. It has been settled in many cases by this and other courts that "a device which does not operate on the same principle cannot be an anticipation."

Los Alamitos Sugar Co. v. Carroll, 173 Fed. 280, at 284 (9th C. C. A.), citing:

Western Electric Co. v. Home Telephone Co., 85 Fed. 649;

Dederick v. Cassell, 9 Fed. 506;

Pattee v. Moline Plow Co., 9 Fed. 821;

Fuller v. Yentzet, 94 U. S. 288, 24 L. Ed. 103;

Topliff v. Topliff, 145 U. S. 156, 36 L. Ed. 658;

Robinson on Patents, Vol. 1, Sec. 282;

Walker on Patents (4th Ed.) Sec. 62.

*Point Four.* Novelty is not negated by anything which was neither designed, nor apparently adapted, nor actually used, to perform the function of the thing covered by the patent, though it might have been made to perform that function by means not substantially different from that of the patented invention. Walker on Patents (5th Ed.), Sec. 68, citing:

Topliff v. Topliff, 145 U. S. 161;

Carnegie Steel Co. v. Cambria Iron Co., 185 U. S. 422;

Knickerbocker Co. v. Rogers, 61 Fed. 297;

Kinnear & Sager Co. v. Capital Sheet-Metal Co., 81 Fed. 492;

Bowers v. San Francisco Bridge Co., 91 Fed. 410.

The applicability of the last cited rule to this case is demonstrated by the absence, in each of the prior patents, of any appreciation or suggestion of maintaining the gasoline in the oil by pressure, and none of these prior patents in any manner recognize or instruct in the saving of gasoline.

We will now discuss the prior patents in order.

### Cooper Patent.

In this patent, it is stated:

*"In that process which I set forth in a contemporaneous application for a patent, a portion of the gas from the well is used repeatedly as a lift or pulverizer to relieve the well of oil and water by raising or assisting to raise them. The contents of the discharge pipe, composed of gas, oil, water, sand, and silt, is forced into a vessel included in the pressure system, wherein the constituents are separated without affecting the general pressure in the system and the gas recovered and taken to the compressor to be used again in part as the lift or pulverizer to relieve the well, the surplus of the gas being conducted away for any useful purpose."*

(Book of Exhibits, p. 134, lines 14 to 28.)

Attention is called to the fact that this statement refers, not to any disclosure in the Cooper patent itself, but to a *contemporaneous application which is not before the court*, and of whose nature we are entirely ignorant. In addition, this patent states, at lines 83 and 84:

“A high pressure of gas may thus be maintained in this cylinder.”

We call attention to the fact that no method is shown for maintaining this high pressure of gas, and that this patent falls within all of the rules previously cited; that is to say, it falls within the rule that the information contained in the patent is not sufficient to perform the process referred to in the patent. It falls within the rule that anything beneficially incapable of the function of a patent is not an anticipation. It falls within the rule that any advantages flowing from the use of pressure were unrecognized and accidental and therefore not an anticipation. It falls within the rule that anything neither designed nor apparently adapted nor actually used to perform the function of the patent is not an anticipation. There is no suggestion in the patent that maintenance of pressure would hold the gasoline in the oil and express the fixed gas from the oil. Certainly the Cooper patent falls within the rule even if it used pressure, of being a prior accidental occurrence or production, the character and function of which was not recognized until the Cooper patent was resurrected by counsel in this case. *It is clear that the device of the Cooper patent does not operate by*

*the mode of operation first disclosed in the Trumble invention and there is no suggestion of or reliance upon this mode of operation.* On the contrary, the Cooper patent expressly states that the mode of operation is by means of *centrifugal separation*. That the mode of operation of the Cooper device is based on centrifugal operation, and not on pressure, is stated in the Cooper patent as follows:

“Entering the cylinder under pressure tangentially to its circumference, the material is thereby given a rotary motion, which separates the constituents conformably to their specific gravities.”

It is obvious, from a study of the Cooper patent, that he was particularly seeking to separate water and sand from oil, and that he used this rotary or centrifugal machine for this purpose. Instead of suggesting the pressure mode of operation conceived by Trumble, the centrifugal action of the Cooper device would dispel and lead in the opposite direction from Trumble’s invention.

In conclusion, the Cooper patent stands in this case as follows:

- (a) as a paper patent which never contributed anything practical to the art;
- (b) as a patent for a device which operated upon the principle of centrifugal separation;
- (c) as a patent which neither discloses nor recognizes the maintenance of pressure in a gas trap to

maintain the gasoline in the oil and express the fixed gas from the oil;

(d) as a patent which merely mentions pressure in conjunction with and as an incident to centrifugal separation;

(e) as a patent which shows no means for maintaining pressure; and,

(f) as a patent in which the mixture of oil and gas is rapidly whirled and moved and is not slowed down and spread out to enable the same to be effectively acted upon by pressure.

#### McIntosh Patent.

(Book of Exhibits, p. 110).

This patent shows a gas trap, but it is entirely free from any reference whatsoever to the maintenance of pressure. In appellant's opening brief, counsel states that it requires only an inspection of the drawing to discover certain things, namely, that the bell 88 is movable up and down and that it acts as a valve for the pipe 7. There is nothing whatsoever in the patent to indicate that any such action takes place. There is certainly nothing to indicate that McIntosh ever thought of or appreciated that his device could be used to retain gasoline in the oil and to express gas therefrom, and the device of McIntosh has its own mode of operation, distinct and different from the Trumble mode of operation. The McIntosh patent falls within all the rules of law stated above.

### Newman Patent.

(Book of Exhibits, p. 136).

There is nothing in this patent to indicate that any pressure whatsoever is used therein. It is apparently not a gas trap at all; indeed, it is stated to be a water and gas separator. It was evidently not used in connection with oil; and the teachings of the Newman patent would be of no benefit to anyone seeking to solve the problem solved by Trumble.

The Newman patent clearly falls within the rules of law previously stated.

### Taylor Patent.

(Book of Exhibits, p. 115).

This patent does not show a gas trap. It shows a steam separator, that is to say, a device for taking grease or oil *out of steam*. It shows no means for *maintaining pressure*, and it was certainly not designed, nor is it adapted, nor has it ever been used, for the purpose of the Trumble invention. It is true that the patentee states that "if sediment accumulates in the chamber, the steam-pressure will ordinarily blow it out through the discharge-pipe." This does not indicate that there was any pressure *maintained* in the chamber, but merely that the steam was allowed to blow through and that it carried any sediment with it. There was certainly no *means* for maintaining pressure, even if pressure were momentarily built up due to the presence of sediment. Certainly, the Taylor patent contains nothing which would in any way assist

one confronted by the problem which confronted Trumble at the time he made his invention.

**Barker Patent.**

(Book of Exhibits, p. 121).

This patent does not disclose a gas trap. The invention relates to improvements in natural gas separators.

"The object of the invention is to provide a device of this character by means of which the gas may be entirely separated *from the water* flowing from Artesian wells, thus saving the gas for use as fuel or for lighting purposes, as well as purifying the water to a sufficient extent to be employed for purposes, other than for human use."

(Book of Exhibits, p. 122, lines 14-21.)

Obviously, the Barker device was not designed or adapted or ever used for the purposes of the Trumble invention. There was no means shown in the Barker device for spreading incoming water so as to allow the escape of gas therefrom, and any pressure means which may be involved in the patent is merely a pressure relieving means, and not a means for *maintaining pressure*. It is very evident that the Barker patent is not only incapable of the function of the Trumble device, but it is also evident that there is nothing in the Barker patent which would in any way lead to the solution of the problem so ably solved by Trumble.

### Bray Patent.

(Book of Exhibits, p. 128).

The misinterpretation of the patents in the appellant's opening brief reaches its climax in the interpretation of the Bray patent. After quoting from the testimony of an expert, who stated that if the gas was carried a long distance, there would be some pipe friction, and who said that this might have a tendency to cause a back-pressure, and who further stated that if the gas was being delivered to an absorbing plant, *which had a* reduction nozzle or some other means of reducing the flow, it would cause a back-pressure,—counsel for appellant proceeds to interpret this testimony as meaning that a short open pipe will maintain pressure in a gas trap. Referring to page 127 of the Book of Exhibits, the court will note that the Bray patent is provided with a pipe 17 which is open at the outer end, and which is connected into the top of the trap. This, appellant maintains, is a pressure *maintaining* means. This is the ultimate in the art of interpretation. To support this most absurd interpretation of a mechanical principle, the appellant's counsel is forced to a plain misstatement of facts. He states that the "diameter of the outlet pipe 17 is less than that of the inlet pipe 16. Appellant's counsel fails to mention that both oil and gas enter through the pipe 16, and that the oil is taken out through the pipe 20, which is much larger in area than the pipe 16, the gas being allowed to escape through the pipe 17. Counsel, in addition, is absolutely wrong in his statement that

the pipe 17 is smaller in area than the pipe 16. A careful caliper of the drawing indicates that this pipe is of the same size as the pipe 15 within any limits of mechanical reproduction or measurement. Of course the relative size of an inlet and an outlet would be immaterial in any event, unless the inlet be filled to capacity.

We regret that it is necessary for us to so contradict the assertions made by counsel for appellant, but this arises through present counsel for appellant attempting to make contentions before this court in total disregard of the evidence considered by Judge Wolverton. None of these contentions are supported by the record and testimony before Judge Wolverton. They are certainly not supported by the facts relied upon by counsel. The novel contentions injected into this case by counsel for appellant, and unsupported in any manner by any testimony in this case, should have little weight on this appeal. Defendant had full opportunity to make any such contention before the court below, and, although testimony was given as to all of these patents, no support was developed for the contentions here made. Furthermore, all of these patents were before the Patent Office, and the ruling of the Patent Office in granting the Trumble patent is contrary to all of the contentions made by counsel for appellant. The Trumble patent is *prima facie* valid, and the burden is upon defendant to show proof in the record invalidating the same. These proofs are not in the record, and their place cannot be taken by mere argument of new counsel.

Counsel for appellant has explained at some length the case of *Standard Oil Co. v. Oklahoma Natural Gas Co.*, reported in 284 Fed. 469. This suit was upon a patent which is not of record in this case. The patent therein relates to a process of *extracting* gasoline from natural gas, and has nothing whatever to do with a gas trap. Extracting gasoline from natural gas is an entirely different matter, and, in many respects, quite the opposite from preventing *the escape* of gasoline during a separation of natural gas. The patentee in that case had no problem of *maintaining gasoline in oil* and of so doing without hindering the separation of gas from the oil. The patentee in that case did not have to meet the problem of an effective separation of gas from oil in quantity. He was merely attempting to extract gasoline from *gas*, whereas Trumble was confronted with the problem of preventing gasoline from ever leaving the oil and of so doing without hindering the separation of the gas from the oil. The evidence in the Standard Oil case showed that a similar process to that disclosed in the patent there had been operated to recover hydro-carbons from artificial gas, and the only apparent novelty resided in performing the same process on a gas of "natural origin on the way from its underground source to its places of consumption." The court held:

"We are satisfied that Saybolt discovered nothing new; that he simply applied an old and well-known process to a new use, which produced no new result or an old result in a better or easier way." (284 Fed. 478.)

The facts are entirely different in the Trumble case. Trumble did produce a new result, and also produced an old result in a better way. The new result produced by Trumble was saving gasoline and *maintaining* it in the oil during the separation of the fixed gas. The old result that Trumble produced in a better way was the effective and clean separation of the fixed gas from the oil. Trumble discovered something new—in fact, he had a totally new object in view. Trumble not only introduced a new mode of operation, but he did so for a new object, and thereby produced a new result by the application of a new principle. There is no identity between the Saybolt patent (which is not in the record here, and which was considered in the Standard Oil case, *supra*), and the Trumble patent. There is no testimony in this case in any way asserting or establishing anticipation by the Saybolt patent, and no such issue is raised by the pleadings herein. In fact, the distinction between the Saybolt process and the Trumble gas trap may be briefly described by stating that Saybolt disclosed that by the use of pressure he could *take gasoline out* of gas as it flowed from a gas well; whereas, Trumble found that by the use of pressure he could *hold gasoline* in a mixture of oil and gas without hindering the separation of the gas from the oil. Instead of following the teachings of the prior art, Trumble branched out on new territory and proceeded contrary to the information then contained in the art. If Trumble had blindly followed the prior art, he would have relieved the pressure on his gas trap in order that the separation of the gas

from the oil would not be hindered. There is no evidence in this case concerning the Saybolt patent; but we might state, for the benefit of the court, that the Saybolt process could not be applied to an oil well, but is applicable only to a gas well; and the opposite state of facts is true as to the Trumble trap.

### Conclusion.

In conclusion, it is respectfully submitted that defendant has infringed each of claims 1 to 4 of the Trumble patent in suit, as found by Judge Wolverton in this case; and particularly claims 3 and 4 by model 1 and claims 1 to 4 by model 2 of the infringing devices. The record clearly shows that Trumble made an important and fundamental addition to the gas trap art, of the character and kind that the patent laws of this country were designed to reward and protect. As said in *Topliff v. Topliff*, 145 U. S. 156:

“The object of the patent law is to secure to inventors a monopoly of what they have actually invented or discovered, and it ought not to be defeated by a too strict and technical adherence to the letter of the statute, or by the application of artificial rules of interpretation.”

The decree entered by Judge Wolverton was according to law, according to equity and good conscience, and in accordance with the facts, and should be affirmed.

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